**CARBOHYDRATE RESEARCH, VOL. 160 (1987)**

## AUTHOR INDEX


ABLETT, S., 397
ATTALLA, R. H., 113

BALLOU, C. E., 171
BARFORD, R. A., 215
BAUER, T., c1
BELTON, P. S., 1
BISWAS, M., 151
BLACKWELL, J., 317, 329
BOKELMAN, G. H., 434
BRANT, D. A., 303
BROWNSEY, G. J., 411
BULKIN, B. J., 95

CAIRNS, P., 411
CAPLAN, A. I., 329
CARRINO, D. A., 329
CESÀRO, A., 355
CHANZY, H., 1
CRESCENZI, V., 283

DAIS, P., 73
DAMERT, W. C., 215
DEA, I. C. M., 95, 283, 381
DEFAYE, J., 171
DELBEN, F., 355
DELL, A., 171
DENTINI, M., 283
DE-PEI LU, 171
DERBYSHIRE, W., 397

EGGLESTON, G., 381
ELGSAETER, A., 13
ELMGREN, H., 227

FISHMAN, M. L., 215
FLAIBANI, A., 355
FUJITA, H., 267
FYFE, C. A., 41

GERKER, T. A., 317
GIDLEY, M. J., 381
GRAVANIS, G., 259
GUPTA, R., 329

HAURAND, P., 369
HENRISSAT, B., 1
HORII, F., 29

INUKAI, S., 425
ISHIDO, Y., c3
ITOU, T., 243

JAMIESON, A. M., 317, 329
JENTOFT, N., 317
JURCZAK, J., c1

KIRAI, A., 29
KITAMARU, R., 29
KITAMARU, S., 205
KOBAYASHI, K., 205
KOHN, R., 343
KUGE, T., 205
KUHN, C.-S., c6
KWAK, Y., 95

LEHMANN, J., c6
LEWIS, G. P., 397
LILLFORD, P. J., 397
LIU, W., 267

MARCHESSAULT, R. H., 41
MATSUO, T., 243
MILAS, M., 259
MILES, M. J., 411
MORRIS, E. R., 381
MORRIS, V. J., 411

NORISUYE, T., 267
NORTON, I. T., 397

OGAWA, K., 425
OHNO, H., 329

PAOLETTI, S., 355
PENG, Q.-J., 57
PERLIN, A. S., 57
PFANNEMÜLLER, B., 185
PHILLIPS, J. G., 215

RAO, V. S. R., 151
REIHANIAN, H., 329
RINAUDO, M., 259
ROSENBERG, L. C., 329
RUBEN, G. C., 434

SAKAKIBARA, T., c3
SATHYANARAYANA, B. K., 131
SATO, T., 267
SEKHARUDU, Y. C., 151

SHOGREN, R. L., 317
SKJÅK-BRÆK, G., 13
SMIDSRØD, O., 13
STEVENS, E. S., 131
STOKKE, B. T., 13
SUDOH, R., c3
SUGA, H., 243

TACHIMORI, Y., c3
TAKAI, I., c3
TALASHEK, T. A., 303
TANAHASHI, H., 205
TANG, L. H., 329
TANNER, S. F., 1
TAYLOR, M. G., 41
TERAMOTO, A., 243
TINLAND, B., 259
TVAROŠKA, I., 137

VÁCLAVÍK, L., 137
VEREGIN, R. P., 41
VINCENDON, M., 1

WILEY, J. H., 113

YAMAMOTO, A., c3
YAMAMOTO, H., 29

ZIEGAST, G., 185
ZUGENMAIER, P., 369

**CARBOHYDRATE RESEARCH, VOL. 160 (1987)**

## SUBJECT INDEX


Amylose, the concentration dependence of the sedimentation rate of, in aqueous solution, 227

Amylose, in dimethyl sulfoxide, carbon-13 magnetic relaxation and local chain motion of, 73

Amylose, polymorphs of, structural study of, by cross-polarization–magic-angle spinning $^{13}$C-n.m.r. spectroscopy, 29

3,7-Anhydro-2-azi-1,2-dideoxy-D-*glycero*-L-*manno*-octitol, a photoaffinity label for β-D-galactosidase from *E. coli*, c6

Asymmetric induction in the Eu(fod)$_3$-mediated high-pressure (4 + 2)cycloaddition of 1-methoxybuta-1,3-diene to 2,3-di-*O*-benzyl-D-glyceraldehyde, c1

Band assignments in the Raman spectra of celluloses, 113

Binary polysaccharide gels, X-ray fibre-diffraction studies of synergistic, 411

Binding of divalent cations to oligomeric fragments of pectin, 343

Carbon-13 magnetic relaxation and local chain motion of amylose in dimethyl sulfoxide, 73

Carrageenan family, investigations of the n.m.r. relaxation of aqueous gels of the, and of the effect of ionic content and character, 397

Cellulose I→cellulose III$_I$ transformation in *Valonia*, solid-state $^{13}$C-n.m.r. and electron microscopy study on the reversible, 1

Cellulose, the concentration dependence of the sedimentation rate of, in aqueous solution, 227

Cellulose, *O*-ethyl-, lyotropic liquid-crystalline system with acetic acid–dichloroacetic acid, structural and rheological investigations on the, 369

Cellulose, triple-stranded left-hand-twisted microfibril, 434

Celluloses, Raman spectra of, band assignments in the, 113

Chitosan, sulfuric, nitric, and halogen acid salts of, X-ray diffraction study of, 425

Comparative behaviour of the bacterial polysaccharides xanthan and succinoglycan, 259

Concanavalin A, interaction with glycans of the oligo-D-mannosidic type, 151

Concentration dependence of the sedimentation rate of amylose, cellulose, and dextran in aqueous solution, 227

Conformation of (1→6)-β-D-glucan by vacuum-ultraviolet, circular dichroism, 131

Conformation of glycans of the oligo-D-mannosidic type and their interaction with concanavalin A: a computer modelling study, 151

Correlation of $^{13}$C chemical shifts with torsional angles from high-resolution $^{13}$C-c.p.–m.a.s. n.m.r. studies of crystalline cyclomalto-oligosaccharide complexes, and their relation to the structures of the starch polymorphs, 41

Cycloaddition of 1-methoxybuta-1,3-diene to 2,3-di-*O*-benzyl-D-glyceraldehyde, asymmetric induction in the Eu(fod)$_3$-mediated high-pressure (4 + 2), c1

Cyclomalto-oligosaccharides, crystalline complexes of, correlation of $^{13}$C chemical shifts with torsional angles from high-resolution $^{13}$C-c.p.-m.a.s. n.m.r. studies of, 41

Degrees of long-chain branching in dextrans, 205

6-Deoxymaltooligosaccharides, synthesis and lipid-binding properties of, 171

Dextran, the concentration dependence of the sedimentation rate of, in aqueous solution, 227

Dextrans, degrees of long-chain branching in, 205

Disaccharides, nonreducing, stereochemistry of, in solution, 137

Electron microscopy, for revealing the molecular size and shape of xanthan, xylinan, bronchial mucin, alginate, and amylose, 13

Electron microscopy study on the reversible cellulose I→Cellulose III$_I$ transformation in *Valonia*, solid-state $^{13}$C-n.m.r. and, 1

Eu(fod)$_3$-mediated high-pressure (4 + 2)cycloaddition of 1-methoxybuta-1,3-diene to 2,3-di-*O*-benzyl-D-glyceraldehyde, asymmetric induction in the, c1

Evaluation of root-mean-square radius of gyration as a parameter for universal calibration of polysaccharides, 215

β-D-Galactosidase from *E. coli*, 3,7-anhydro-2-azi-1,2-dideoxy-D-*glycero*-L-*manno*-octitol as a photoaffinity label for, c6

(1→6)-β-D-Glucan, conformation of, as determined by vacuum-ultraviolet circular dichroism, 131

Influence of sidechains on the calculated dimensions of three related bacterial polysaccharides, 303

Influence of side-chains on the dilute-solution properties of three structurally related, bacterial anionic polysaccharides, 283

Investigations of the n.m.r. relaxation of aqueous

gels of the carrageenan family and of the effect of ionic content and character, 397
Isotope effect on the order–disorder transition in aqueous schizophyllan, 243

Light-scattering studies of fractionated ovine submaxillary mucins, 317
Lipid-binding properties of 6-deoxymaltooligosaccharides, 171

Maltooligosaccharides, 6-deoxy-, synthesis and lipid-binding properties of, 171
Methyl 4,6-*O*-benzylidene-2,3-dideoxy-2-*C*-*p*-tolylsulfonyl-β-D-*erythro*-hex-2-enopyranoside, preparation and nucleophilic addition reactions of, C3
Molecular size and shape of xanthan, xylinan, bronchial mucin, alginate, and amylose as revealed by electron microscopy, 13
Mucins, ovine submaxillary, light-scattering studies of fractionated, 317

N.m.r. relaxation of aqueous gels of the carrageenan family, investigations of the, and of the effect of ionic content and character, 397

Observations on n.m.r. spectra of starches in dimethyl sulfoxide, iodine-complexing, and solvation in water–dimethyl sulfoxide, 57
Oligo-D-mannosidic type of glucans, the conformation of, and their interaction with concanavalin A, 151

Pectin, oligomeric fragments of, binding of divalent cations to, 343
Photoaffinity label for β-D-galactosidase from *E. coli*, 3,7-anhydro-2-azi-1,2-dideoxy-D-*glycero*-L-*manno*-octitol as a, C6
Phosphorolytic syntheses with di-, oligo- and multi-functional primers, 185
Polyelectrolytic effects in carboxylic derivatives of natural polysaccharides, 355
Polysaccharide gels, X-ray fibre-diffraction studies of synergistic binary, 411
Polysaccharide, structure and gelation of *Rhizobium* capsular, 381
Polysaccharides, bacterial anionic, three structurally related, the influence of side-chains on the dilute-solution properties of, 283
Polysaccharides, carboxylic derivatives of natural, polyelectrolytic effects in, 355
Polysaccharides, g.p.c. analyses of, 205
Polysaccharides, three related bacterial, the influence of side chains on the calculated dimensions of, 303
Polysaccharides, universal calibration of, evaluation of root-mean-square radius of gyration as a parameter for, 215
Preparation and nucleophilic addition reactions of methyl 4,6-*O*-benzylidene-2,3-dideoxy-2-*C*-*p*-tolylsulfonyl-β-D-*erythro*-hex-2-enopyranoside, C3
Primers, di-, oligo-, and multi-functional, phosphorolytic syntheses with, 185
Proteoglycan aggregates, thermal and solvent stability of, by quasielastic, laser light-scattering, 329

Raman spectra, of celluloses, band assignments in the, 113
Raman spectroscopy, rapid, for a study of retrogradation kinetics of waxy-corn and potato starches, 95
Retrogradation kinetics of waxy-corn and potato starches: a rapid Raman-spectroscopic study, 95
*Rhizobium* capsular polysaccharide, structure and gelation of, 381

Schizophyllan, aqueous, isotope effect on the order–disorder transition in, 243
Solid-state $^{13}$C-n.m.r. and electron microscopy study on the reversible cellulose I→cellulose $III_I$ transformation in *Valonia*, 1
Starch, structures of the polymorphs of, 41
Starches, observations on n.m.r. spectra of, in dimethyl sulfoxide, on iodine-complexing of, and on solvation of, in water–dimethyl sulfoxide, 57
Starches, waxy-corn and potato, retrogradation kinetics of, by a rapid Raman-spectroscopic study, 95
Stereochemistry of nonreducing disaccharides in solution, 137
Structural and rheological investigations on the lyotropic, liquid-crystalline system: *O*-ethylcellulose–acetic acid–dichloroacetic acid, 369
Structural study of amylose polymorphs by cross-polarization–magic-angle spinning, $^{13}$C-n.m.r. spectroscopy, 29
Structure and gelation of *Rhizobium* capsular polysaccharide, 381
Succinoglycan and xanthan, the bacterial polysaccharides, comparative behaviour of, 259
Synthetic utility of α-sulfonylalkene intermediates in carbohydrate chemistry, C3

Thermal and solvent stability of proteoglycan aggregates by quasielastic, laser light-scattering, 329
Thermally induced, conformational change of xanthan in 0.01M aqueous sodium chloride, 267
Triple-stranded, left-hand-twisted cellulose microfibril, 434

X-Ray diffraction study of sulfuric, nitric, and halogen acid salts of chitosan, 425
X-Ray fibre-diffraction studies of synergistic, binary polysaccharide gels, 411
Xanthan, thermally induced conformational change of, in 0.01M aqueous sodium chloride, 267